EAST WEST UNIVERSITY
Department of Computer Science and Engineering
B.Sc. in Computer Science and Engineering Program
Final Examination, Fall 2021 Semester

Course:	**CSE 246 Algorithms, Section-4**
Instructor:	**Amit Kumar Das, Senior Lecturer, CSE Department**
Full Marks:	**32 (20 will be counted for final grading)**
Time:	**1 Hour and 10 min**

Note: There are **FOUR** questions, answer ALL of them. Course Outcome (CO), Cognitive Level and Mark of each questionnaire mentioned at the right margin.

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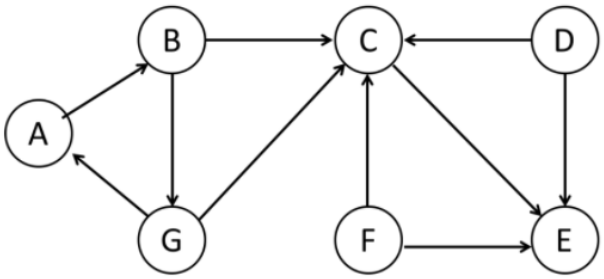
1. [CO2,C4, Mark: 8]

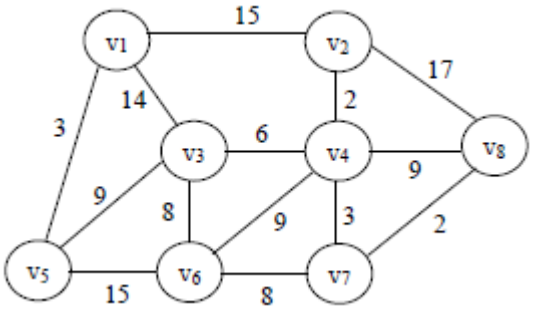


Consider the above graph and find out followings.

1. Perform BFS on the above graphs starting at vertex A
2. Perform DFS on the above graphs starting at vertex A

2. Write a psudocode to find all of the articulation points in a graph. Specify the computational complexity of your method. [CO2,C4, Mark: 8]

3. [CO2,C4, Mark: 8]



Consider the above graph and perform Dijkstra's Algorithm to find a minimum spanning tree and shortest parth tree. Use v6 as the source noed.

4. Write a psudocode of Bellman–Ford algorithm. Specify the computational complexity of your method. [CO2,C4, Mark: 8]